EventGrid

Best Practices

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Contents

1 EG Best Practices

This document summarizes practices in common application scenarios of EventGrid (EG). Each practice case is given detailed solution description and operation guidance, helping you easily build your services based on EG.

Table 1-1 EG best practices

Practice	Description
Routing OBS Application Service Messages to DMS for Kafka	This chapter describes how to use EventGrid (EG) to route the application service events of Object Storage Service (OBS) to Distributed Message Service (DMS) for Kafka.

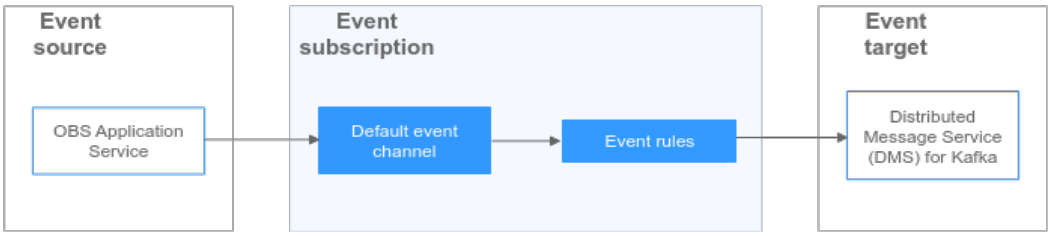
2 Routing OBS Application Service Messages to DMS for Kafka

2.1 Introduction

This chapter describes how to use EventGrid (EG) to route the application service events of Object Storage Service (OBS) to Distributed Message Service (DMS) for Kafka.

Architecture

The following figure shows the event subscription architecture.



2.2 Resource and Cost Planning

The following table shows the resource and cost planning of this practice.

Table 2-1 Resource and cost planning

Resource	Description	Quantity	Fee (USD)
Virtual Private Cloud (VPC)	Create a VPC.	1	00.00
VPC subnet	Create a subnet in VPC.	1	00.00

Resource	Description	Quantity	Fee (USD)
Security group	Create a security group.	1	00.00
Object Storage Service (OBS)	Create an OBS bucket. **NOTE** Creating OBS buckets is free of charge. For details, see **OBS Pricing Details**.	1	00.00
Distributed Message Service (DMS) for Kafka	Buy a pay-per-use Kafka instance.	1	Example: kafka.2u4g.cluster USD0.94/hour
EventGrid (EG)	• Create an event subscription with OBS application service as the source and DMS for Kafka as the target. • Create a DMS for Kafka connection.	1	00.00

NOTICE

The fees listed here are estimates. The actual fees will be displayed on the Huawei Cloud console.

2.3 General Procedure

Prerequisites

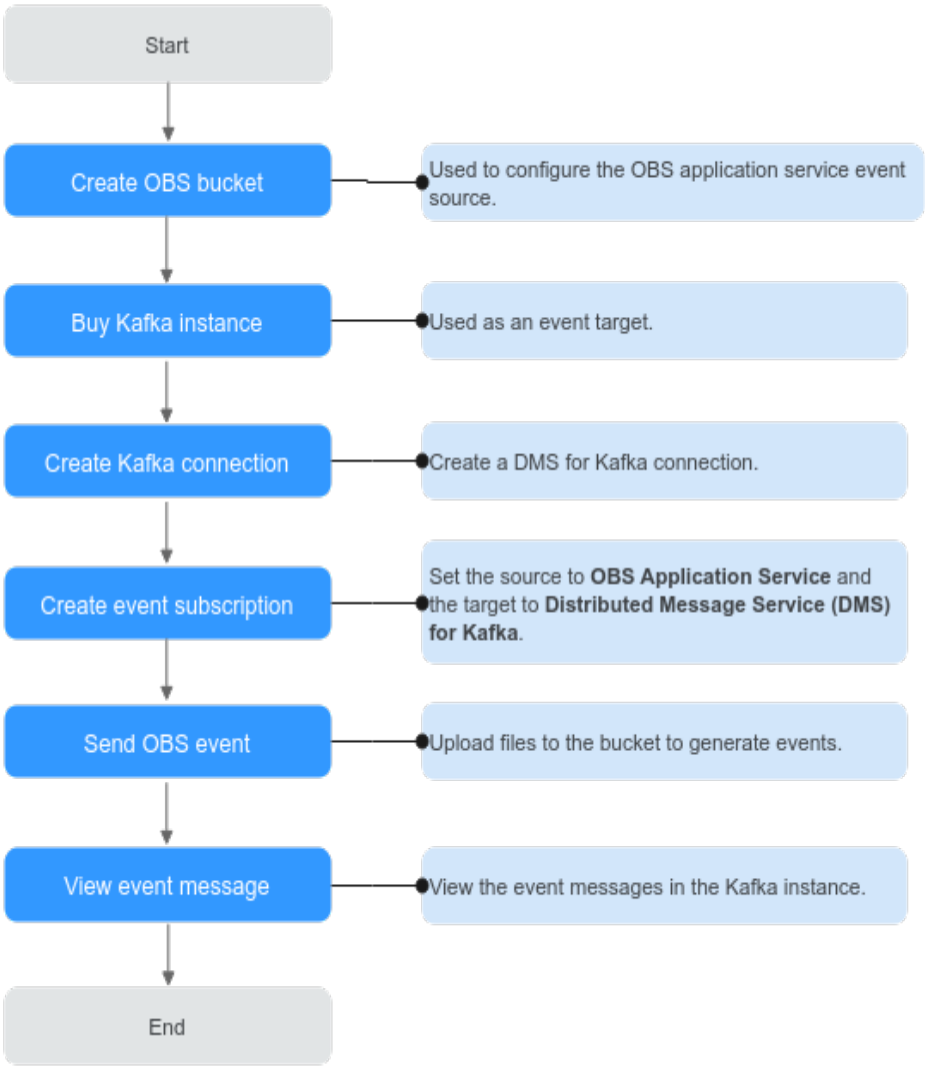
Perform the following operations before this practice:

- **Enabling EG and Authorizing Permissions**.

  To use OBS as the event source of event subscription, you must have configured the **Tenant Administrator** permission.
- **Creating a VPC and a Subnet**.
- You have **created a security group**. The default security group must be configured with the ICMP protocol for the Kafka VPC's CIDR block in the inbound rule, while outbound rules must permit all ICMP traffic to destination **0.0.0.0/0**.

General Procedure

The following figure shows the process of creating an event subscription to route events.



2.4 Implementation Procedure

2.4.1 Creating an OBS Bucket

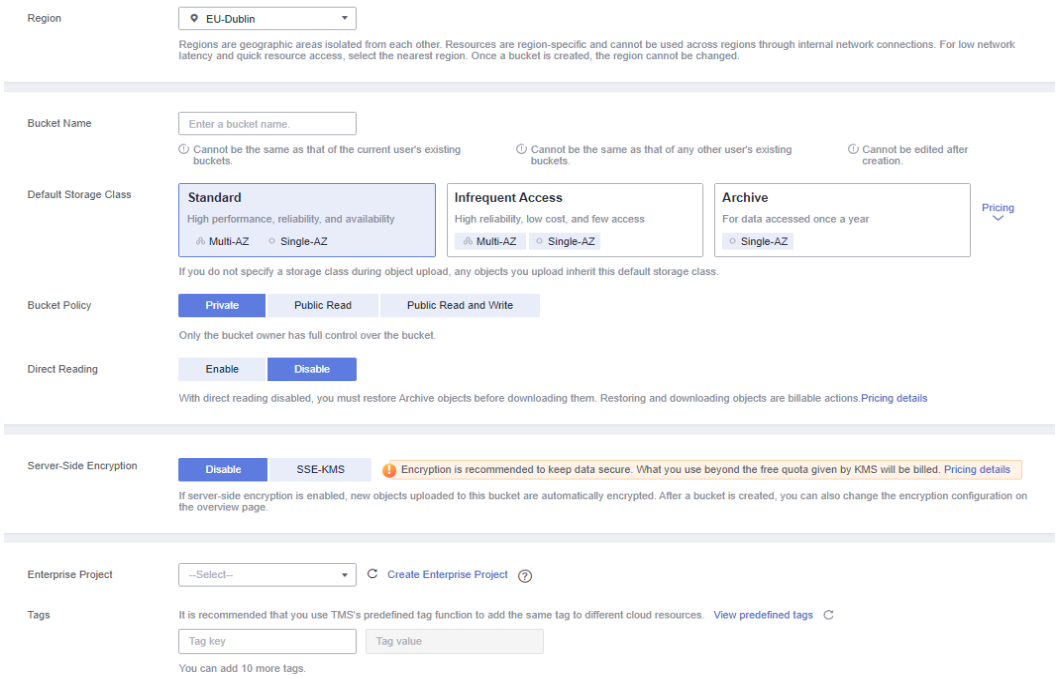
Step 1 Log in to the **OBS console**.

Step 2 Click **Create Bucket**.

Step 3 Set bucket parameters by referring to **Figure 2-1**. For details about these parameters, see **Creating a Bucket**.

- **Region**: Select the region of the EG service.
- **Bucket Name**: Enter **eg-obs**.
- **Default Storage Class**: Select **Standard**.
- **Bucket Policy**: Select **Private**.
- **Direct Reading**: Select **Disable**.
- **Enterprise Project**: Select **default**.

Figure 2-1 Creating a bucket



Step 4 Click **Create Now**.

----End

2.4.2 Buying a Kafka Instance

Buying an Instance

Step 1 Log in to the **DMS for Kafka console** and click **Buy Kafka Instance** in the upper right corner of the page.

Step 2 Configure the instance parameters. For details about the parameters for purchasing a Kafka instance, see **Buying an Instance**.

- **Billing Mode**: Select **Pay-per-use**.
- **Region**: Select the region of your EG service.
- **Project**: Select the default project.
- **AZ**: Retain the default value.
- **Instance Name**: Enter **eg-kafka**.
- **Enterprise Project**: Select **default**.
- **Specifications**: Retain the default value.
- **Version**: Select a 3.x version.
- **CPU Architecture**: Select **x86**.
- **Broker Flavor**: Select **kafka.2u4g.cluster.small**.
- **Brokers**: Enter **3**.
- **Storage Space**: Select **High I/O** and set to **100 GB**.
- **Capacity Threshold Policy**: Select **Automatically delete**.

- **VPC**: Select **vpc-default** and **subnet-default**.
- **Security Group**: Select a security group from the drop-down list.

Configure the following parameters in the **Advanced Settings** area.

- **Kafka SASL_SSL**: Enable this function.
- **Security Protocol**: Select **SASL_SSL**.
- **SASL/PLAIN**: Enable this function.
- **Username**: Enter **kafka-name**.
- **Password**: Enter a password.
- **Confirm Password**: Confirm new password.

Step 3 Click **Buy**.

----End

Creating a Topic

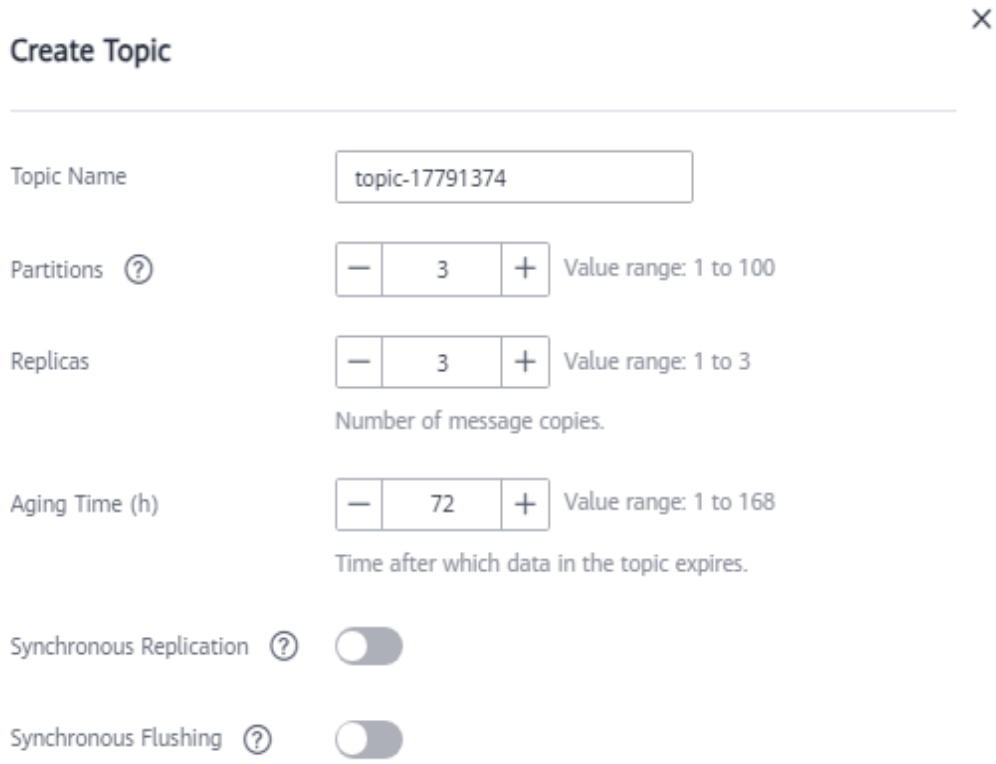
Step 1 Log in to the **DMS for Kafka console** and select the region where the Kafka instance is located.

Step 2 On thg **DMS for Kafka** page, click the Kafka instance name to go to the details page.

Step 3 On the **Topics** tab, click **Create Topic**.

Step 4 Configure topic parameters by referring to **Figure 2-2**. Set the topic name to **topic-eg**, and retain the default values for other parameters. For details about parameters for creating a topic, see **Creating a Topic**.

Figure 2-2 Creating a topic



Step 5 Click **OK**.

----End

2.4.3 Creating a Kafka Connection

Step 1 Log in to the **EG console**.

Step 2 In the navigation pane, choose **Network Management** > **Connections**.

Step 3 Click **Create Connection**.

NOTE

When you create your first connection, your authorization will be required and an agency will be automatically created. For details, see **Authorization**.

Step 4 Configure the connection parameters. For details about the parameters for creating a DMS for Kafka connection, see **Creating a Connection**.

- **Type**: Select **DMS for Kafka**.
- **Name**: Enter **kafka-connect**.
- **Instance**: Select **eg-kafka**.
- **SASL_SSL Authentication**: Select **SCRAM-SHA-512**.

- **Username**: Enter the username **kafka-name** of this instance.
- **Password**: Enter the password of this instance.
- **Acknowledgments**: Select **Leader only**.

Step 5 Click **OK**. If the connection status is **Normal**, the connection is successfully created.

----End

2.4.4 Creating an Event Subscription

Constraints

- If you specify an object name prefix or suffix, only events with the prefix or suffix will be processed. If not specified, events of any object will be processed.
- If the selected OBS bucket is invoked by other event subscriptions, ensure that the object name prefix and suffix are different from those configured in other event subscriptions. Otherwise, an error message is displayed.

Procedure

Step 1 Log in to the **EG console**.

Step 2 In the navigation pane, choose **Event Subscriptions**.

Step 3 Click **Create Event Subscription**.

Step 4 Click  next to the default subscription name.

Step 5 Enter a new subscription name and description, and click **OK**.

Step 6 Configure an event source.

Set the following parameters:

- **Provider**: Select **Huawei Cloud**.
- **Event Source**: Select **OBS Application Service**.
- **Bucket**: Select an OBS bucket.
- **Event Type**: Select the desired event types.
- **Object Name Prefix**: Only events with this specified object prefix will be processed. By default, this field is left blank, indicating full match.
- **Object Name Suffix**: Only events with this specified object suffix will be processed. By default, this field is left blank, indicating full match.
- **Object Name Encoding**: Enable this function.
- **Filter Rule**: Retain the default value. For details about how to configure a filtering rule, see **Filter Rule Parameters**.

Step 7 Configure an event target.

Set the following parameters:

- **Provider**: Select **Huawei Cloud**.

- **Event Target**: Select **Distributed Message Service (DMS) for Kafka**.
- **Connection**: Select **kafka-connect**.
- **Topic**: Select **topic-eg**.
- **Enable**: Disable message key.
- **Transform Type**: Select **Pass-through**. For details about how to configure the transformation rule, see **Event Content Transformation**.

Step 8 Click **OK**.

----End

2.4.5 Sending an OBS Event

Step 1 Go to the OBS console, and choose **Buckets** in the navigation pane.

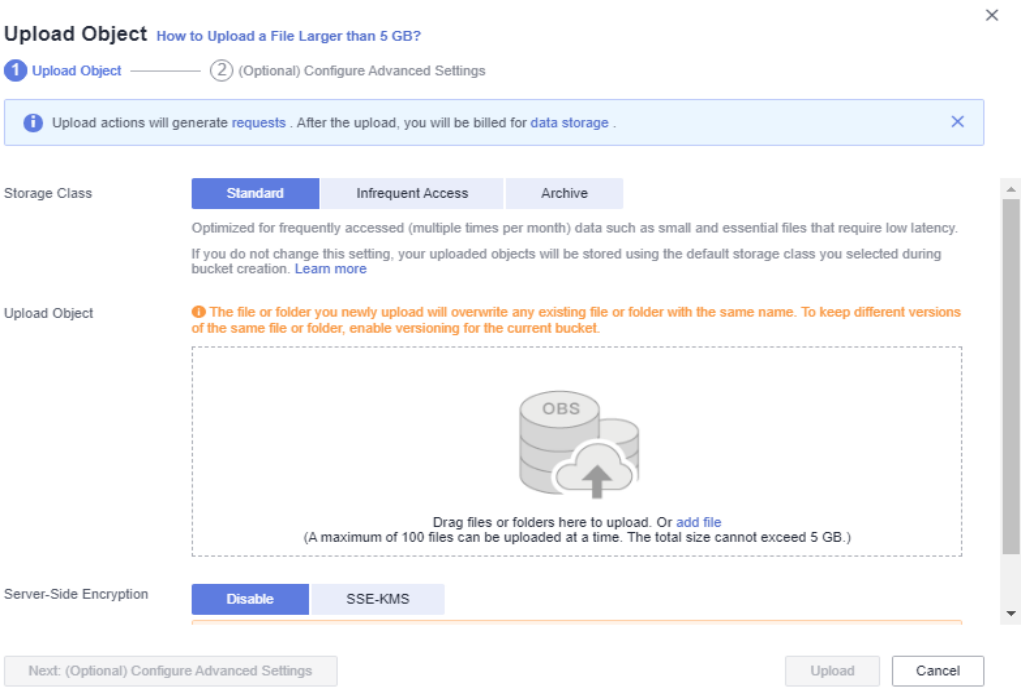
Step 2 Click bucket **eg-obs**.

Step 3 On the **Objects** tab, go to the target folder, and click **Upload Object**.

Step 4 Upload a local file and click **Upload**.

For more information about how to upload files, see **Uploading an Object**.

Figure 2-3 Uploading an object



----End

2.4.6 Viewing Event Messages

Step 1 Log in to the **DMS for Kafka console** and select the region where the Kafka instance is located.

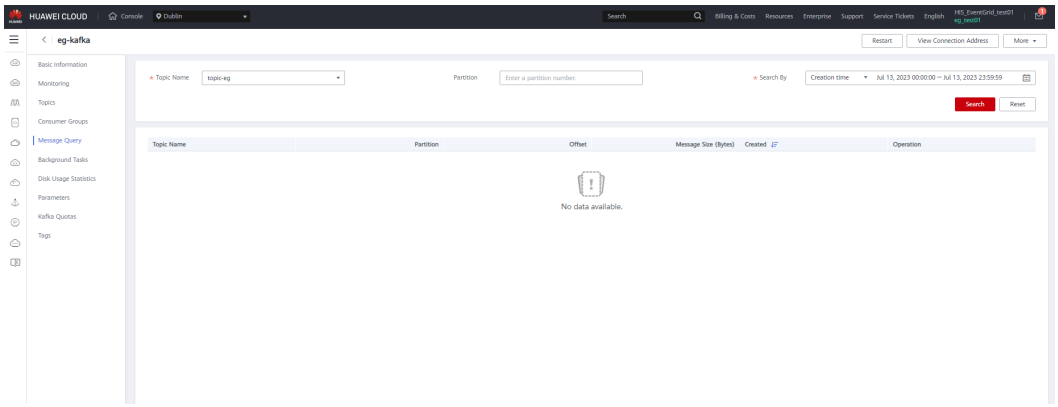
Step 2 On thg **DMS for Kafka** page, click instance **eg-kafka** to go to the details page.

Step 3 Click the **Message Query** tab. Then specify the topic name (**topic-eg**), partition, and search method.

Step 4 Click **Search** to query messages.

Step 5 Click **View Message Body** to view message details.

Figure 2-4 Event message details



----End

